



United States Naval Test Pilot School



The mission of TPS: “Serve the Fleet”



Test Squadrons (Patuxent, Army, USAF, Foreign)

Pilots, NFO's, FTE's and Short Course Graduates



U.S. Naval Test Pilot School

“UNIVERSITY OF FLIGHT”
RDTE & Training Squadron
TEST”



History



- Established 1945
- 10 Week Program
Evolved to 5 1/2
Months, Later 8 Months



- Syllabus Evolution
 - Rotary Wing
.....1961
 - 11 Months
.....1973
 - Airborne
.....1975



History--Schoolhouse



Constructed 1993

- Classrooms, Labs (Lower Deck)
- Student/Staff Offices (Upper Deck)



TPS Students





Student Profile-- Navy

- 6-Year Navy Lieutenant
- ▣ 1,000+ Flight Hours
- ▣ Two Operational Deployments
- ▣ Engineering/Science Degree





Student Sources

Per Class

Navy (direct)	12
Navy (COOP)	5
USMC	4/
USA	4/5
USAF	1
International	2
ETPS exchange	1 (Annual)
EPNER exchange	1 (Every 3 years)
<u>Engineer (GS)</u>	<u>7</u>
Total	36



A diverse, energetic group!



Selection Process

- Based on RDT&E/Program Requirements
- Military Boards
 - Flight
 - Professional
 - Academic
- Engineers
 - Experience
 - Performance
 - Flight suitability





Class Composition



Pilots NFO's

Engineers

Fixed Wing (14) 12

2

Rotary Wing (13) 11

2

Airborne Systems (9) _____

6

3

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23

6

7

9

TOTAL = 36

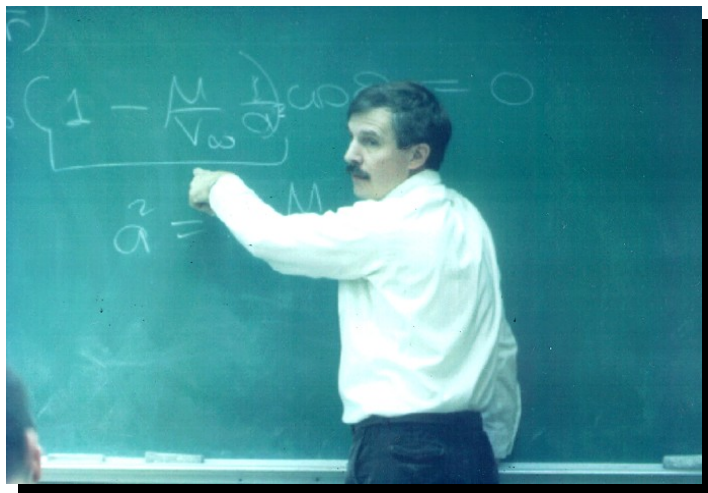


INTERNATIONAL STUDENTS

- CANADIAN FORCES
- ROYAL NAVY
- ROYAL NETHERLANDS AIR FORCE
- ROYAL AUSTRALIAN AIR FORCE
- JAPANESE MILITARY SELF-DEFENSE FORCE
- ISRAELI AIR FORCE
- FRENCH NAVY / FRENCH AIR FORCE
- SWISS AIR FORCE
- ROYAL AIR FORCE
- ROYAL SWEDISH AIR FORCE
- ROYAL NORWEGIAN AIR FORCE
- ROYAL AUSTRALIAN NAVY
- REPUBLIC OF SINGAPORE AIR FORCE
- INDIAN NAVY
- SPANISH AIR FORCE
- ITALIAN AIR FORCE



Instructional Flow



- Classroom
- Lab
- Exercise Briefing
- Flight Demonstration
- Data Flights
- Technical Report
- Review/Debrief/Critique



Long Course--Current Program



- Two Classes Annual
- Three Syllabi
 - 550 Academic Hours
 - 100 Sorties/150 Flight Hours
 - 25 Technical Reports



Fixed and Rotary Wing Syllabus Overview



- ▮ Crew Station Analysis
- ▮ Aircraft Performance
- ▮ Flying Qualities





Airborne Systems Syllabus Overview



- Communications, Digital Systems
- Navigation
- Air-to-ground Radar
- Air-to-air Radar
- Electro-Optical
- Night Vision Goggles
- Airborne Weapons
- Flying Qualities and Performance





Final Exercise



- Developmental Testing Evaluation Phase IIA
- Combines all elements learned in curriculum
- Aircraft is new to the student (site may be too)
- 1 week to write test plan



Short Course Department



- **Provide continuing education to TEAM engineers and aircrews on the disciplines of flight test...**
- **Staff**
 - **Two full-time instructors**
- **Partnering agreements provide access to industry and academic experts.**
- **ESDP to Journeyman Program**
 - **Introduction to flight test**
 - **Aircraft flying qualities**
 - **Airborne systems test and evaluation**





ASSETS





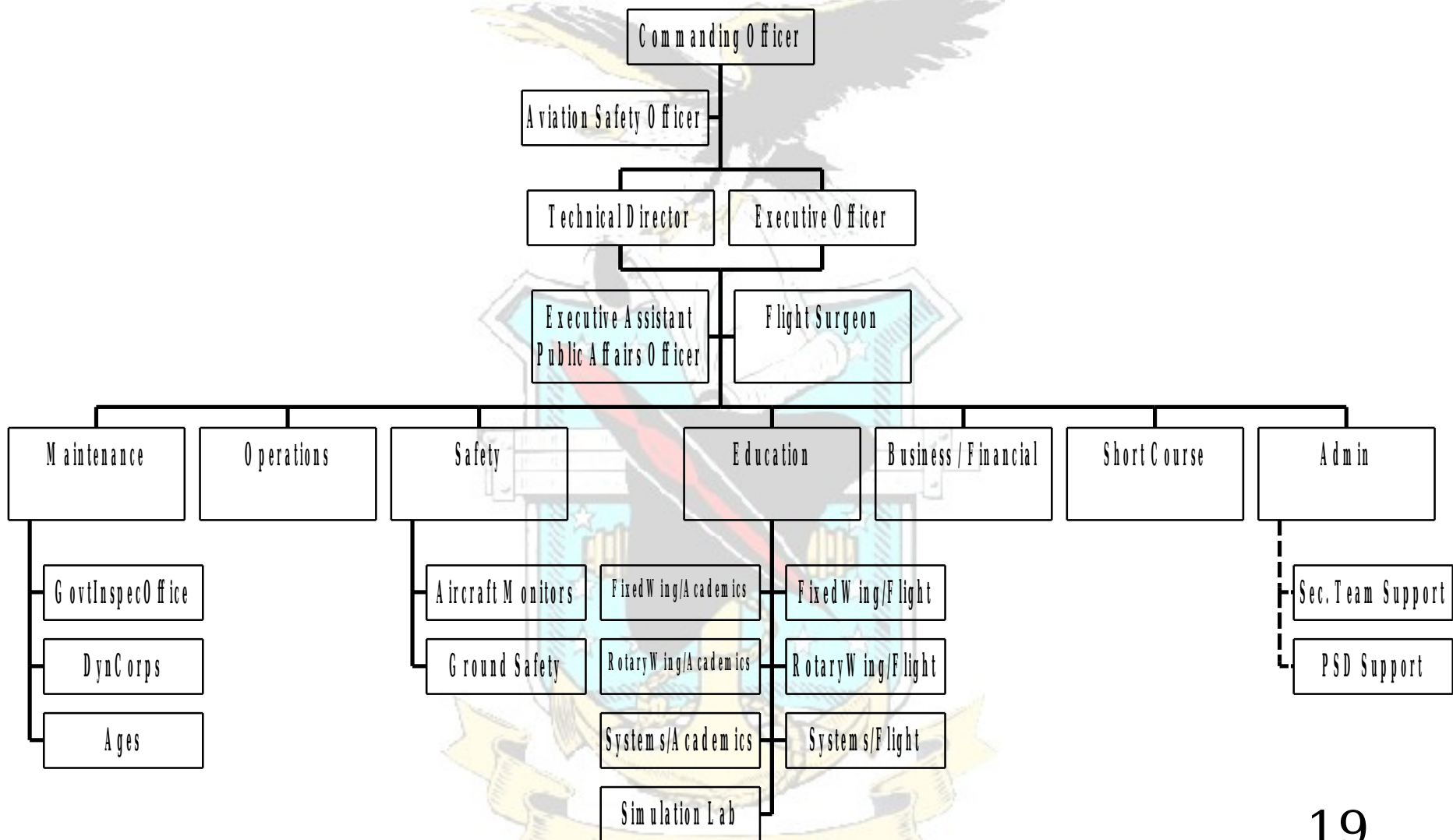
PEOPLE



- **72 students**
- **25 flight instructors**
 - **USN, USMC, USA, USAF, civil service, contractor, and international exchange**
- **9 civil service academic instructors**
 - **Long-term**
 - **Unique talents and experience**
 - **National assets**
- **30 support**
- **Budget ADD**



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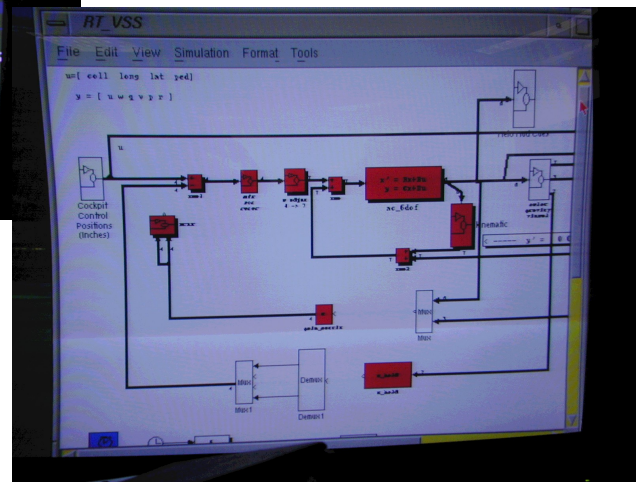
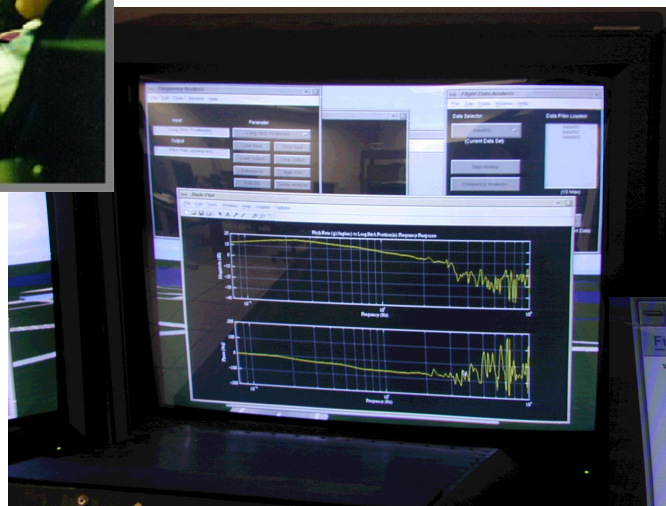


FQ SIMULATION-- FW/RW





Instant replay and parameter mod





Radar Simulation





Systems Laboratory



- **Basic EE**
- **EW**
- **FLIR**
- **Laser**
- **Optics**



USNTPS Aircraft



- 49 Aircraft
- 13 Different Types
 - USN
 - USA
 - USAF
 - Commercial



- Unique Aircraft Assets Representing the full Spectrum of Flying Qualities, Performance and Systems Integration



F-18B-- SYSTEMS "FLAGSHIP"





SYSTEMS "FLYING CLASSROOM" NP-3D



F-16 MLU
RADAR

WF-360 FLIR



NP-3D STUDENT STATION





NP-3D INSTRUCTOR/ "OFF DUTY" STUDENT





NSH-60B VARIABLE STABILITY HELO





MD-369 (OH-6)





H-58





UH-60A





T-2





T-38





X-26 GLIDER





U-1/U-6





C-12





Other Aircraft



- RDT&E Test Squadrons
- CALSPAN
- Learjet VSS
- Flight Demonstrations
 - Military
 - Contract
 - International
 - DT-II Exercises
 - International partners
 - Other US services



VERIDIAN'S VARIABLE STABILITY LEARJET





Graduates - The Future of Aviation



- NASA
- Operational Commanders
- Acquisition Professionals



- Nuclear POWER PROGRAM
- NAVAIR/NAWC Leadership
- Aerospace Industry



Vision for the Future: Continued Improvement



- **Continue to develop staff and their careers**
- **Sim--A/A, FLIR, SAR**
- **Systems “flying classroom”--eliminate single point failure**
- **Short course development**
- **Sustain aircraft fleet**
 - **T-38**
 - **H-60**
 - **RW VSS**
 - **FW VSS**
- **Civil testing initiatives**